



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,064	12/11/2000	Johan Bennarsten	P00,1832	2760

7590 06/05/2003

Schiff, Hardin & Waite  
Atten: Patent Department  
6600 Sears Tower  
Chicago, IL 60606-6473

[REDACTED] EXAMINER

MENDOZA, MICHAEL G

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

3761

DATE MAILED: 06/05/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/733,064	BENNARSTEN ET AL.	
	Examiner	Art Unit	
	Michael G. Mendoza	3761	

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 13 January 2003.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-9 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winn et al. 5092326 in view of Gluck et al. 4747403.

1. As to claim 1, Winn et al. teaches a high-frequency oscillator ventilator comprising: a first gas conduit having an opening adapted for gas connection with a patient's airways and a bias gas flow inlet and a bias flow outlet disposed to define therebetween a flow path for a bias gas within the first conduit; an oscillator for inducing pressure oscillations in gas within the first conduit to move the gas along a path intersecting the flow path for a bias gas alternately into and out of the opening at a predetermined high-frequency, and withdrawing at least the volume of gas from the first gas conduit to induce the pressure oscillations (col. 4, lines 48-59; see figures). It should be noted that Winn et al. fails to teach the oscillator comprising an arrangement for alternately introducing a volume of additional gas, in addition to the bias gas into the

Art Unit: 3761

first gas conduit. However, Gluck et al. does teach an oscillator comprising an arrangement for alternately introducing a volume of additional gas, in addition to the bias gas into the first gas conduit (col. 3, lines 22-33). Therefore it would have been obvious to one of ordinary skill in the art to modify the ventilator of Winn et al. to include the addition gas of Gluck et al. for creating humidified inhalation gas (col. 2, lines 41-44).

2. As to claim 2, Winn/Gluck teaches an HFO ventilator as claimed in claim 1 wherein the arrangement in the oscillator is disposed to introduce the volume of additional gas into the first gas conduit to intersect the bias flow path at a location proximal the opening (see fig. 2; Gluck).
3. As to claim 3, Winn/Gluck teaches an HFO ventilator as claimed in claim 1 wherein the arrangement comprises a second gas conduit arranged to introduce additional gas into the first gas conduit in a direction toward the opening, a gas pulse generator connected (see fig. 2; Gluck) to the second conduit which introduces a train of gas pulses into the second conduit with each pulse contain the volume of additional gas and being separated from a next pulse in the pulse train by an inter-pulse interval and an extraction device which withdraws gas from the first gas conduit at least in each inter-pulse interval (col. 9, lines 35-40; Winn).
4. As to claim 4, Winn/Gluck teaches an HFO ventilator as claimed in claim 3 wherein the extraction device is in gaseous communication with the second gas conduit to withdraw the gas therethrough.

Art Unit: 3761

5. As to claim 5, Winn/Gluck teaches an HFO ventilator as claimed in claim 3 wherein the extraction device is in gaseous communication with the first gas conduit via a third gas conduit through which the extraction device withdraws the gas (see fig. 2; Gluck).

6. As to claim 6, Winn/Gluck teaches an HFO ventilator as claimed in claim 3 wherein the extraction device is in gaseous communication with an end of the first gas conduit distal the opening.

7. As to claim 7, Winn/Gluck teaches an HFO ventilator as claimed in claim 6 wherein the extraction device is further co-operatively in gaseous communication with the bias flow outlet to vent the withdrawn gas therethrough.

8. As to claim 8, Winn/Gluck teaches an HFO ventilator as claimed in claim 3 wherein the extraction device comprises a size variable gas holding volume in gaseous communication with the first gas conduit, the gas holding volume being defined at least in part by a wall section reciprocally moveable in time relationship with the operation of the gas pulse generator to alternately increase the size of the gas holding volume to withdraw gas from the first conduit at least during the inter-pulse interval and to decrease the size of the gas holding volume to vent the withdrawn gas during the next gas pulse of the pulse train (col. 4, lines 48-59; Winn).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

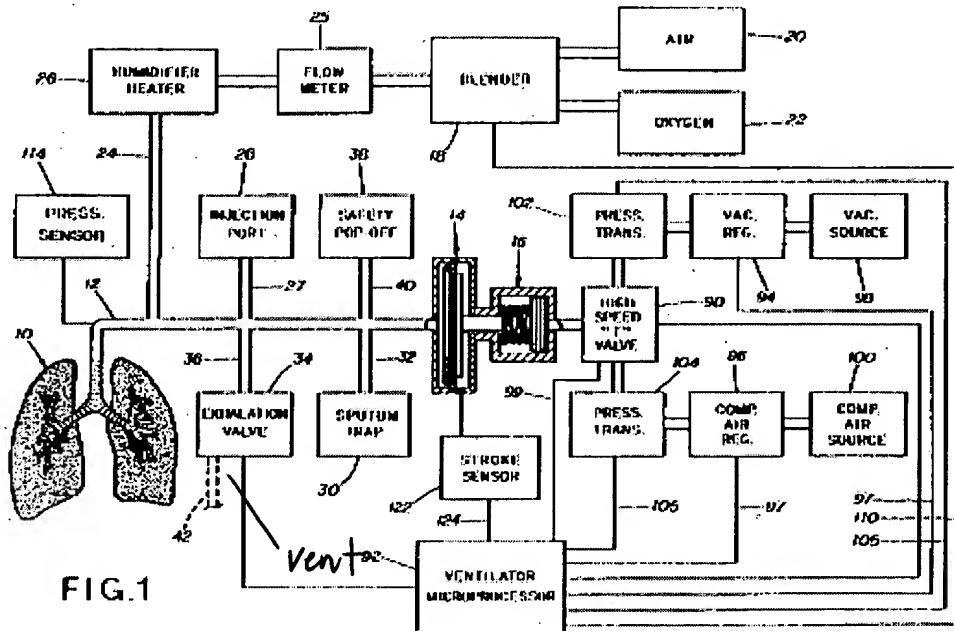
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3761

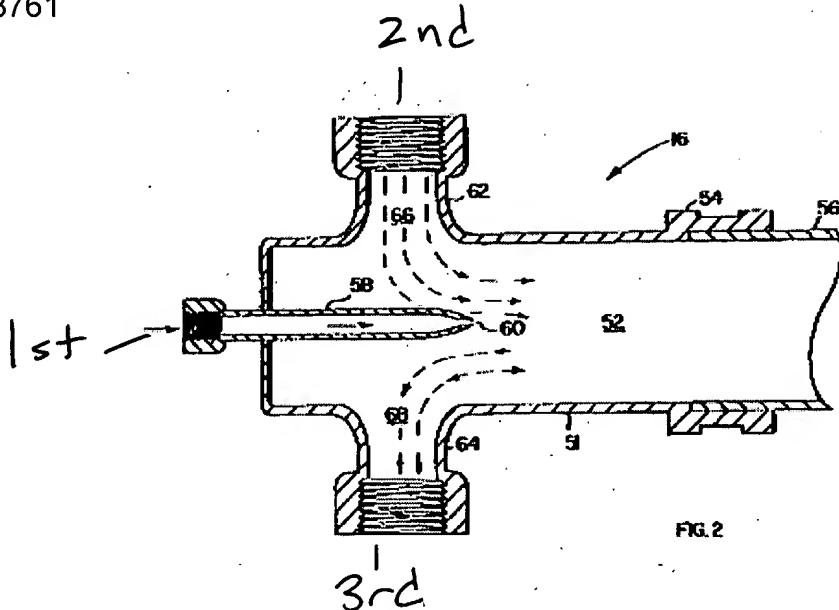
invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winn et al. in view of Gluck et al.

11. As to claim 9, Winn/Gluck teaches an HFO ventilator as claimed in claim 1. It should be noted that Winn et al. fails to teach wherein the oscillator introduces a volume of gas of between one and four milliliters per kilogram weight of a patient as the volume of additional gas. However, Winn et al. does teach an HFO ventilator that is adapted for operating within a wide range of parameters. Therefore it would have been obvious to one of ordinary skill in the art to arrive at the particulars as recited in the above claim depending on the needs of the user through routine observation and experimentation.



Art Unit: 3761



### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael G. Mendoza whose telephone number is (703) 305-3285. The examiner can normally be reached on Mon.-Fri. 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (703) 308-1957. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-4520 for regular communications and (703) 306-4520 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

MM

May 30, 2003



WEILUN LO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700